

Work Order ID 64663



Page 1

Monday, December 13, 2010 11:46:50 AM

Item ID: D3478-9

Accept



Setup Start



Revision ID:

Item Name: Air Inlet Scoop

Stop



Start Date: 12/14/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 12/21/2010 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

MUF

Date: *10-12-13*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3478

Rev C

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: *13123*
For D3478-9S
Spin as per Dwg D3478
Possible Supplier: SIEG
Material release note is required

CZ 10/12/13 (4)

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure material certification is attached

12/14/21 (4)

POSITIVE RECALL

EFFECTIVE *10/12/21* AUTH *h* *net/certs*

RELEASED *h* DATE *10/12/22*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64663

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Page 2

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Required Date: 12/21/2010 Req'd Qty: 4.00

Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

8/10/12/21 / 8/10/12/22 correct cuts.

130

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

1-Scribe line at .180" Below center line of part
2-Rough Cut Part on Band Saw Leaving some Material.
3-Using DT8842 Angle Block, Sand Part on Disk Sander to Scribed line.4-
Deburr.

- 8 parts from 4

8 0
10/12/22

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/12/22

(4 parts make 8)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Cust Item ID:

Required Date: 12/21/2010 Req'd Qty: 4.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Identify as per dwg & Stock Location: ST60

0.00



Packaging

Memo

0.00

Packaging

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

12/14/22 (F)10/12/22 (J)12/12-22 (H)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, December 13, 2010 11:46:50 AM

Page 1

Work Order ID: 64663



Parent Item: D3478-9



Parent Item Name: Air Inlet Scoop


Start Date: 12/14/2010

Required Date: 12/21/2010

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-01-31 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3478-9S  Air Inlet Scoop, Spinning Detail		Purchased	No			100	Each	0.0000	1	4			



12/14/21 (4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			


NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	64663
Description: AIR INLET ADAPTER	Part Number:	D3478 -9
Inspection Dwg: D3478 , Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Prototype

[illegible]

Measured by:	
Date:	10/12/22

Audited by:	S
Date:	10/12/22

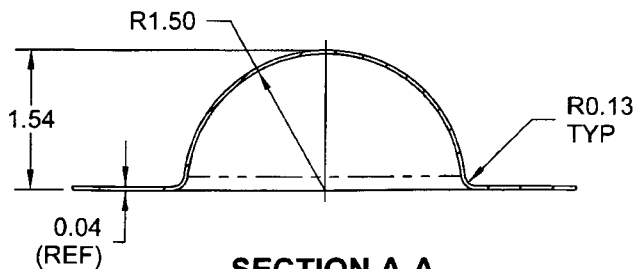
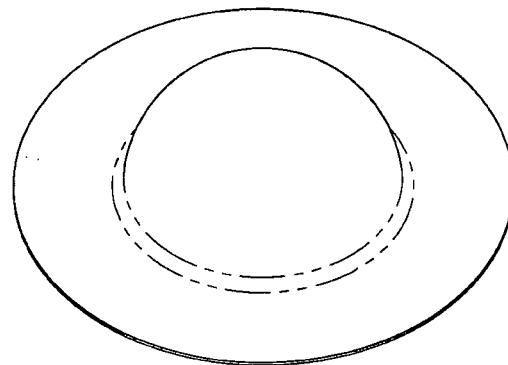
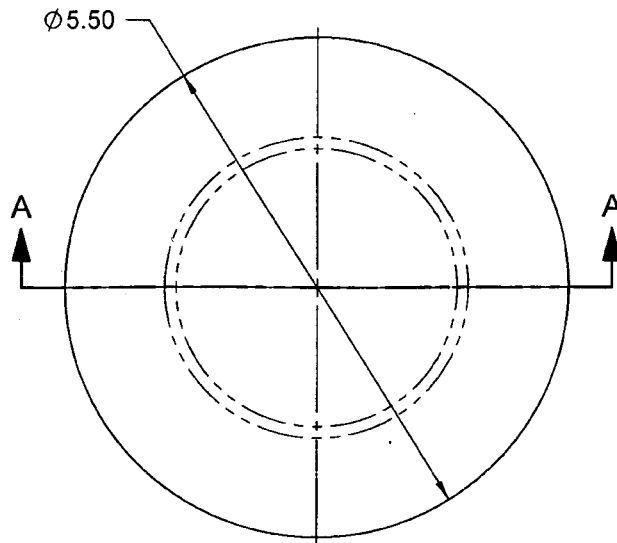
Prototype Approval:	
Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3478	REV. C SHEET 6 OF 7
DATE 08.12.19		TITLE AIR INLET ADAPTER	SCALE 1:2

RELEASED
09/01/30



SECTION A-A

#64663

D3478-9S AIR INLET SCOOP, SPINNING DETAIL

NOTES:

- 1) MATERIAL: 2024-0 ALUMINUM SHEET, 0.040" THICK PER AMS-QQ-A-250/4 OR AMS 4037 (REF. DART SPEC. M2024T0S.040)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

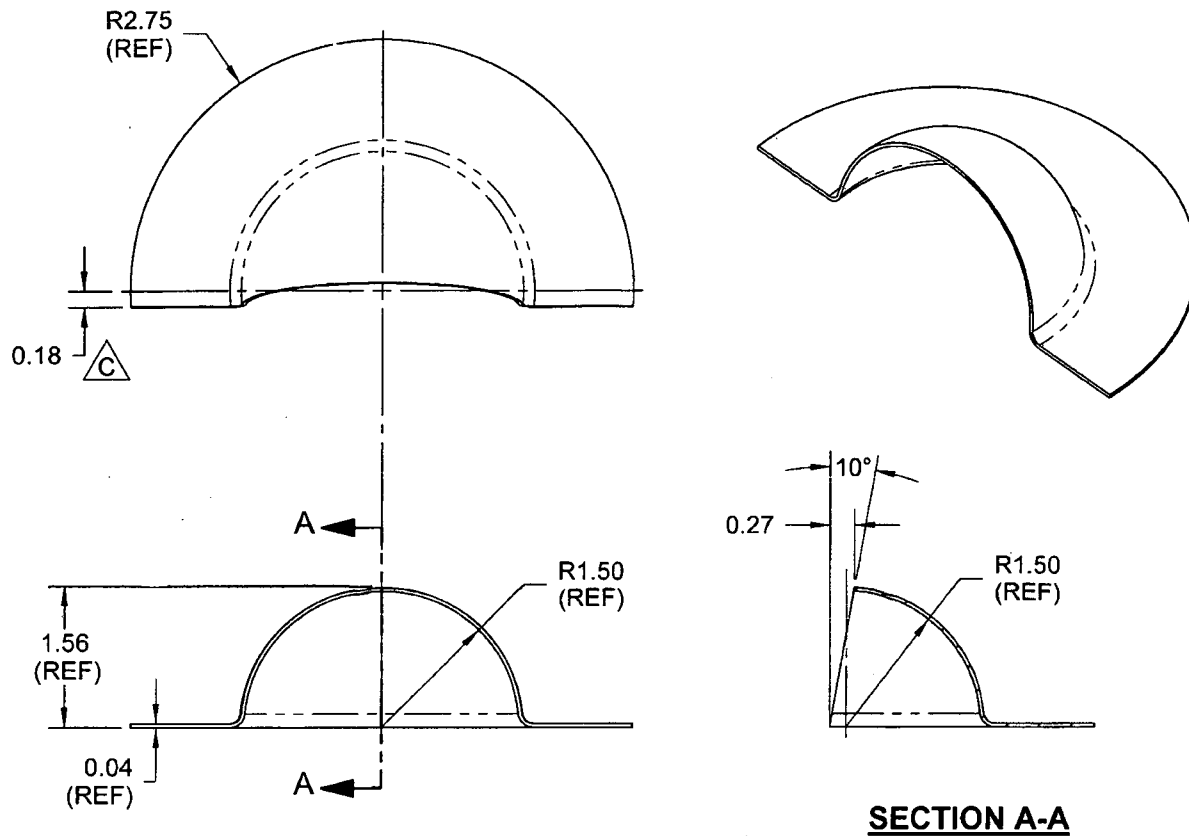
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3478	REV. C SHEET 7 OF 7
DATE 08.12.19		TITLE AIR INLET ADAPTER	SCALE 1:2

RELEASED
09/01/30 *[Signature]*

D3478-9 INLET SCOOP
(MAKE FROM D3478-9S)

#64663

NOTES:

- 1) MATERIAL: MAKE FROM D3478-9S
- 2) IDENTIFY WITH DART P/N D3478-9 USING FINE POINT PERMANENT INK MARKER
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO13123**

Purchase Order Date 12/13/10

PO Print Date 12/13/10

Page Number 1 of 1

Order From :

VC-SIE001

SIEG'S MANUFACTURING LTD.
6236 - 205 STREET
LANGLEY, BC V2Y 1N7
CA

Contact Name

Vendor Phone

604 530 7455

Vendor Fax

604 530 7490

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED
12/13/10

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D3478-9S	Air Inlet Scoop, Spinning Detail	12/17/10 Yes	4.00 Each	FedEx PI collect	\$13.0700	\$52.28

Special Inst: SPIN AS PER DWG D3478 REV. C
B64663

PO Total:

\$52.28

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

MATERIAL CERTIFICATION
REQ'D UPON DELIVERY

Change Nbr: 1

Change Date: 12/13/10

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



Sieg's Manufacturing Ltd. Packing Slip

Metal Spinning & Fabricating

6236 205 Street

Langley, BC, Canada V2Y 1N7

Phone:(604)530 7455 Fax:(604)530-7490

Packing Slip No.:

38655


Date:

12/17/2010

Page:

1

Sold to:	Ship to:
DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7	DART AEROSPACE LTD. 1270 ABERDEEN STREET HAWKESBURY, ONTARIO K6A 1K7
Order No.: 13123	Sold By: KAULBARS, ARLA
Shipped By: FED EX	Ship Date: 12/17/2010
Tracking No.:	

Item No.	Unit	Description	Quantity
D3478-9s 	Each	AIR INLET	4
Comment:			



Sieg's Manufacturing Ltd.

6236 205 Street Langley, B.C. Canada V2Y 1N7

Ph#: (604)530-7455 fax#: (604)530-7490

arla@siegsmsg.com

INSPECTION REPORT

Date: Dec 17/0

Customer: Dart Aerospace

Packing Slip: 38655

Part#:	Quantity	Material	Check holes	Insp. By.
D3478 TS	<u>4</u>	<u>2024-C</u>	<u>N/A</u>	<u>AE</u>

Notes:

Material Certification Attached: _____



Sieg's Manufacturing Ltd.

6236 205 Street, Langley, BC, V2Y 1N7

Ph: (604)530-7455 Fax: (604)530-7490

E-mail: gerry@siegsnmfg.com

FAX

Fax Transmittal Form

To

Chantal At Dart Aerospace

From

Gerry Kaulbars/ Arla Kaulbars
Spinning Department

Date sent December 22, 2010

of pages including cover page: 15

Message:

Good Morning,

I have the Specs for the 2024-0 I got them from the supplier. I hope this is all you need.

Merry Christmas!

Thanks

Arla

Please see attached sheets

**Sieg's Manufacturing Ltd.**

Metal Spinning and Fabricating

6236 - 205 STREET, LANGLEY, B.C. V2Y 1N7

TELEPHONE: (604) 530-7455 • FAX: (604) 530-7490

INSPECTION REPORTDate: Dec. 17/10Customer: Dart AerospacePacking Slip: 38655

Part#:	Quantity	Material	Check holes	Debur edges	Insp. By.
D3478-95	4	2024-0	N/A	✓	✓

Notes:

Alcoa # 24546

Material Certification Attached: ✓

005

No. 1769 P. 1/3

Sieg's Mfg. Ltd.

12/22/2010 12:10 FAX 6045307490

Dec. 21, 2010 1:21PM -thyssen krupp

Att: Arla

530-7710

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

Page 1

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and the mechanical properties shown on the face of this sheet.

Mark J. Vrables
Mark J. Vrables
Director of Manufacturing Davenport Works

Kenton P. Young
Kenton P. Young
Quality Assurance Manager

205131
Ship Date
2003-01-10

9050
B.L. No.
24546

Invoice No.
56912

Alcoa No. Item
DS-56734-1

P.O. No./Govt Contract No.
8G6255

Customer
C&B-WALLINGFORD

Ship To: COPPER & BRASS SALES INC
WALLINGFORD BRANCH
5 STERLING DRIVE
WALLINGFORD, CT 06492

Item Description
.040 IN TR (+.0000 -.003) X 48 IN W X 144
IN LN (N) A/T ALCLAD 2024-O PLAT SHEET MILL FINISH (PART 752603-
1) RAMBA 02-182-030. PER (EXC GA TOL) AMS-QQ-A-
250/5 REV A & EXCEPT MARKING
ASTMB709 REV 02 & EXCEPT MARKING AMS4040 REV M
([MARKED]) INTERLEAVED MAX GROSS
SKID WGT: 2400 LB QUAN TOL +/-30 %
CQR 0137587 REV 01 QRR 000879 CUST REQ 02-12-
15 *** W/E 02-12-21 ***

10/12/22

Num	Package Ticket	Lot	Weight	Quantity	UOM	Pc Id/Serl
1	639714	533531	2035	77	PC	
2	639810	533531	795	30	PC	
3	639812	533531	2011	77	PC	
4	639813	533531	2115	81	PC	
5	639814	533531	2039	77	PC	
			8995	342		

Notes for CQR: 0137587.1
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/5 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2.
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/5.

CQR: 0137587.1 -Specification Limits

Temp	Dir		UTS	TYS	ELAD
			KSI	KSI	PCT
0	Long Transv.	Max	30.0	14.0	
		Min			12
T42	Long Transv.	Max	UTS	TYS	ELAD
		Min	KSI	KSI	PCT
T42P	Long Transv.	Max	57.0	34.0	15
		Min	UTS	TYS	ELAD
			KSI	KSI	PCT
			57.0	34.0	15

C & B8
Q.C. APPROVED
17-8

SIEG'S MFG. LTD.,
6236 205 Street
Langley B.C. V2Y 1N7
Ph: 604-530-7455

SIKORSKY

No. 1769 P. 2/3

Sieg's Mfg. Ltd.

12/22/2010 12:10 FAX 6045307490
Dec. 21. 2010 1:22PM thyssen krupp

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

Mark J. Vrabec
Mark J. Vrabec
Director of Manufacturing Davenport Works

Kenton P. Young
Kenton P. Young
Quality Assurance Manager

205131
Ship Date
2003-01-10
P.O. No./Govt Contract No.
8G6265

9050
B.L. No.
24546

Invoice No. 56912
Alcoa No. Item DS-56734-1
Customer C&B-WALLINGFORD

Page 2

CQR: 0137587.1 -Specification Limits (cont.)

Temp	Dir		UTS	TYS	EL4D										
T62	Long Transv.		KSI	KSI	PCT										
		Max													
		Min	60.0	47.0	5										
Chemical Composition			SI	FE	CU	MN	MG	CR	ZN	TI	Other	Other			
		Max	.50	.50	4.9	.9	1.8	.10	.25	.15	.05	.15	Aluminum		
Alloy 2024		Min			3.8	.30	1.2						REMAIN		
Chemical Composition			SI+FE	CU	MN	MG	V	ZN	TI	Other	Aluminum				
LINER		Max	.70	.10	.05	.05	.05	.10	.03	.03					
Alloy 1230		Min										99.30			

Lot: 533531 -Mechanical, Physical, Metallography, Quantometer Results

Temp Dir		No. Test		UTS	TYS	EL4D
				KSI	KSI	PCT
O	Long Transv.	2	Max	23.4	11.5	20
			Min	23.4	11.4	20
T42	Long Transv.	2	Max	60.8	37.6	24.5
			Min	60.5	37.5	19.5
T42P	Long Transv.	2	Max	62.5	38.4	27
			Min	62.4	38.2	25
T62	Long Transv.	2	Max	61.8	49.4	9.5
			Min	61.6	48.9	9

SIEG'S MFG. LTD.,
6236 205 Street
Langley B.C. V2Y 1N7
Ph: 604-530-7455

Kant

004
No. 1769 P. 3/3

12/22/2010 12:10 FAX 6045307490
Dec. 21, 2010 1:22PM thyssen krupp
Sieg's Mfg. Ltd.

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

Page 3

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Mark J. Vrabec

Mark J. Vrabec
Director of Manufacturing Davenport Works

Kenton F. Young

Kenton F. Young
Quality Assurance Manager

205131
Ship Date

2003-01-10

9050
B.L. No.

24546

Invoice No.

56912

Alcoa No. Item

DS-56734-1

P.O. No./Govt Contract No.

8G6265

Customer

C&B-WALLINGFORD

Lot: 533531 - Mechanical, Physical, Metallography, Quantometer Results (cont.) -----
Cast Number: Chemical SI FE CU MN SG CR ZN TI
H9532015 Actuals .07 .17 4.6 .64 1.6 .01 .10 .03

SIEG'S MFG. LTD.,
6236 205 Street
Langley B.C. V2Y 1N7
Ph: 604-530-7455

[Signature]